

Air Quality Permit

Statement of Basis

In Response to a Contested Case Petition Filed August 12, 2003

And

Permit Modification Submitted October 28, 2004

January 31, 2005

Tier II Operating Permit No. T2-030055

C. Wright Construction, Inc., Meridian, Idaho
Facility ID No. 001-00019

Prepared by:

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PROPOSED

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Acronyms, Units, and Chemical Nomenclature

AIRS Aromatic Information Retrieval System

AQCR Air Quality Control Region **CFR** Code of Federal Regulations

CO carbon monoxide C. Wright C. Wright Const., Inc.

DEQ Department of Environmental Quality **EPA** U.S. Environmental Protection Agency

IDAPA a numbering designation for all administrative rules in Idaho promulgated in accordance

with the Idaho Administrative Procedures Act

lb pound

MACT Maximum Achievable Control Technology NAAQS National Ambient Air Quality Standards

NESHAP National Emissions Standards for Hazardous Air Pollutants

NOx oxides of nitrogen

NSPS New Source Performance Standards **PAHs** polycyclic aromatic hydrocarbons

 PM_{10} particulate matter with an aerodynamic diameter less than or equal to a nominal 10

micrometers

PSD Prevention of Significant Deterioration

SIC Standard Industrial Classification

SM synthetic minor SO_2 sulfur dioxide

T/yr tons per any consecutive 12-month period

volatile organic compounds

UTM Universal Transverse Mercator VOC

1. PURPOSE

The purpose for this memorandum is to identify, describe, and respond to the contested case proceedings filed in accordance with IDAPA 58.01.23 et seq, *Rules of Administrative Procedure Before the Board of Environmental Quality*.

On August 12, 2003, C. Wright Construction, Inc. (C. Wright), through its attorney Stoel Rives LLP, filed contested case proceedings with the Board of Environmental Quality (Board) regarding Tier II Operating Permit No. T2-000033, issued July 8, 2003 (Final Permit). Filing of the petition was timely. The petition identifies three areas of the Final Permit that C. Wright requests review of from the Board: 1) the new conditions and requirements in the Final Permit were not subject to review and public comment; 2) the new conditions and requirements in the Final Permit are not authorized under the Idaho Air Rules; and 3) the new conditions and requirements in the Final Permit are unreasonable.

DEQ, C. Wright, and Stoel Rives met several times and came to an agreement regarding the appealed permit conditions. This proposed permit contains the agreed upon condition, and thus, resolves the contested case petition. The appealed permit conditions and DEQs response is provided in Appendix A. The proposed permit will be provided for public comment as required by IDAPA 58.01.01.404.02.b.

In addition to the contested case petition, C. Wright has submitted a permit application to modify the hot-mix asphalt throughput limit contained in its existing permit (the Final Permit mentioned above). Therefore, the purpose for this memorandum is to also satisfy the requirements of IDAPA 58.01.01 404.04, *Rules for the Control of Air Pollution in Idaho* for Tier II operating permits.

2. FACILITY DESCRIPTION

C. Wright mines and processes river rock into aggregate used to produce hot-mix asphalt. The asphalt is produced in a drum-mix asphalt plant. Some processed aggregate is sold to contractors and the general public. With this modification, asphalt production is limited to 80,000 tons per any consecutive 12-month period.

3. PROJECT DESCRIPTION

Permit Modification

On October 28, 2004, C. Wright submitted a Tier II modification application to increase production at the facility due to increased growth in southern Idaho. C. Wright proposes to increase asphalt production from 50,000 tons per year to 80,000 tons per year, a 30,000 ton per year increase. The increase in PM_{10} associated with the production increase is approximately 0.68 tons per year. Short term (hourly) throughput is not increasing, and as such, neither is short term PM_{10} emissions.

4. FACILITY / AREA CLASSIFICATION

C. Wright is classified as a synthetic minor facility because its potential to emit is limited below all major source thresholds. The facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The facility is subject to NSPS requirements in accordance with 40 CFR 60, Subpart OOO. The facility is not subject to any NESHAP or MACT requirements. The SIC code defining the facility is 1142, and the AIRS facility classification is "SM".

The facility is located within AQCR 64 and UTM zone 11. The facility is located in Northern Ada County which is designated as attainment for PM_{10} and CO and unclassifiable for all other regulated criteria air pollutants.

The AIRS information provided in Appendix B provides the classification for each regulated air pollutant at C. Wright. This required information is entered into the EPA AIRS database.

5. APPLICATION SCOPE

Permit Modification

C. Wright submitted a permit application to modify its hot-mix asphalt facility. Specifically, C. Wright proposes to increase its annual hot-mix asphalt production by 30,000 tons per year. The existing permit limits production to 50,000 tons per year. With the modification, production will be limited to 80,000 tons per year. The associated PM_{10} emissions increase is approximately 0.68 tons per year. Hourly production will not increase. The application requesting the modification is included as Appendix C.

C. Wright noted in its application that its source of ready-to-use aggregate (plant mix) is no longer available. Historically, C. Wright would mine this material and transport it from the pit to the location of the asphalt plant. Because the plant mix is no longer available, fugitive emissions associated with vehicle traffic and material handling will no longer be generated. C. Wright estimates the associated decrease in fugitive PM_{10} emissions is approximately 3.55 tons per year. The submittal describing the emissions reduction is provided as Appendix D.

In summary, the increase in PM_{10} emissions from the modification is offset by the reduction in fugitive PM_{10} emissions due to the inability to obtain plant mix. The change in PM_{10} emissions from this proposed project is a decrease of approximately 2.87 tons per year (0.68 T/yr – 3.55 T/yr = -2.87 T/yr).

5.1 Application Chronology

October 28, 2004	C. Wright, through its attorney Stoel Rives, submitted a permit application to modify the facility's hot-mix asphalt production
December 9, 2004	C. Wright submitted an analysis describing the decrease in fugitive emissions due to the loss of availability of plant mix
December 21, 2004	C. Wright submitted additional modeling for the modification
February 2005	DEQs proposed Tier II Operating Permit No. T2-030055 is provided for public comment

6. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this Tier II. Please refer to Appendix A for the discussion regarding the contested case petition and DEQs response.

Emissions Inventory

An emissions inventory was provided by Geomatrix, C. Wright's consultant. The emissions inventory was reviewed by DEQ and is acceptable. Table 6.1 summarizes the emissions inventory. The submittal provided by Geomatrix is provided as Appendix E.

Table 6.1 HOT-MIX ASPHALT PLANT EMISSIONS INVENTORY

Pollutant	Emission Factor (lb pollutant/T HMA production)	Existing Emissions Inventory (50,000 T/yr limit) (T/yr)	Proposed Emissions Inventory (80,000 T/yr limit) (T/yr)	Emissions Increase (T/yr)			
PM ₁₀	0.0454	1.135	1.811	0.676			
NOx	0.026	0.650	1.040	0.39			
SO_2	0.0034	0.085	0.136	0.051			
Arsine	5.60E-07	1.40E-05	2.25E-05	8.50E-06			
Benzene	0.00039	9.75E-03	1.56E-02	5.85E-03			
Chromium VI	4.50E-07	1.15E-05	1.80E-05	6.5E-06			
Formaldehyde	0.0031	7.75E-02	0.124	4.65E-02			
Nickel	6.30E-05	1.57E-03	2.52E-03	9.5E-04			
PAHs	5.48E-07	1.35E-05	2.2E-05	8.5E-06			
Note: Emission factor reference provided in Appendix E							

6.2 Modeling

Modeling for the proposed modification was provided by Geomatrix. DEQ has reviewed the modeling and has determined that the emissions increase will not cause or contribute to a violation of any applicable air quality standard. DEQs modeling memorandum is presented as Appendix F.

6.3 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this Tier II operating permit.

IDAPA 58.01.01.203.....Permit Requirements for New and Modified Stationary Sources

This permitting action is a modification of Tier II Operating Permit No. T2-000033, issued July 8, 2003. In accordance with the Tier II operating permit General Conditions, modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 et. seq. The proposed modification will comply with all applicable emissions standards and will not cause or contribute to violation of any applicable air quality standard as required by IDAPA 58.01.01.203.01, 02 and 03.

IDAPA 58.01.01.404.02.b....Procedures for Issuing Permits

DEQs proposed action will be made available for public comment.

IDAPA 58.01.01.407 Tier II Operating Permit Processing Fee

The final permit is subject to a processing fee of \$2,500 because the permitted emissions are between one and 10 tons per year, excluding fugitive emissions.

40 CFR 60 Subpart OOOStandards of Performance for Nonmetallic Mineral Processing Plants

DEQ analysis of C. Wright's facility indicates the skimmer screen deck (1986 project) and the standalone screen deck (1997 project) are affected facilities and are subject to the opacity standard in 40 CFR 60672(b).

7. PERMIT CONDITIONS

This section lists only those permit conditions that have changed or have been deleted as a result of this permit modification. All other permit conditions remain unchanged. Permit condition related to the modified permit are identified as Modified Permit Conditions. Permit conditions related to the existing permit are identified as Existing Permit Conditions.

- 7.1 Existing Permit Condition 3.3 limits PM_{10} emissions to 1.14 tons per year.
- 7.2 Modified Permit Condition 3.3 limits PM₁₀ emissions to 1.80 tons per year.
- 7.3 Existing Permit Condition 3.4 limits hot-mix asphalt production to 50,000 tons per year.
- 7.4 Modified Permit Condition 3.4 limits hot-mix asphalt production to 80,000 tons per year.
- 7.5 Existing Table 5.1 limits PM_{10} emissions to 1.14 tons per year.
- 7.6 Modified Table 5.1 limits PM_{10} emission to 1.80 tons per year.

Note: Changes to permit conditions related to the contested case are discussed in Appendix A.

8. FEES

The final permit is subject to a processing fee of \$2,500 because the permitted emissions are between one and 10 tons per year, excluding fugitive emissions.

9. PUBLIC COMMENT

In accordance with IDAPA 58.01.01.404.02.b, a public comment period will be provided.

10. RECOMMENDATION

Based on the review of the application materials, and all applicable state and federal regulations, staff recommends that DEQ provide proposed Tier II Operating Permit No. T2-030055 for public comment as required by IDAPA 58.01.01.404.04.02.b.

BR/sd Permit No. T2-030055

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Appendix A Response to Contested Case Petition

PETITION AND RESPONSE

This appendix contains the conditions appealed by C. Wright and DEQs responses. As stated earlier in this document, on August 12, 2003, C. Wright Construction, Inc. (C. Wright), through its attorney Stoel Rives LLP, filed contested case proceedings with the Board of Environmental Quality (Board) regarding Tier II Operating Permit No. T2-000033, issued July 8, 2003 (Final Permit). Filing of the petition was timely. The petition identifies three areas of the Final Permit that C. Wright requests review of from the Board: 1) the new conditions and requirements in the Final Permit were not subject to review and public comment; 2) the new conditions and requirements in the Final Permit are not authorized under the Idaho Air Rules; and 3) the new conditions and requirements in the Final Permit are unreasonable.

DEQ, C. Wright, and Stoel Rives met several times and came to an agreement regarding the appealed permit conditions. This proposed permit contains the agreed upon condition, and thus, resolves the contested case petition. The appealed permit conditions and DEQs response is provided in Appendix A. The proposed permit will be provided for public comment as required by IDAPA 58.01.01.404.02.b.

1. <u>The new conditions and requirements in the Final Permit were not subject to review and public comment.</u>

The draft Tier II permit that was issued for public comment November 9, 2001, contained 12 facility-specific conditions. The Final Permit contains 31 facility-specific conditions. As a result, the Final Permit contains many new terms and conditions that were not part of the draft permit and were not issued for, or subjected to, public review and comment. C. Wright had no opportunity to review or comment on the new conditions. The petition specifically identifies Permit Conditions 2.2, 2.3, 2.4, 2.6, 2.7, 2.9, 2.14, 3.5, and 3.10.2. The following narrative provides each petitioned permit condition and DEQs response.

Response – Permit Conditions 2.2, 2.3, and 2.4

The Final Permit does contain additional conditions, but only to the extent that the Final Permit is consistent with permits issued to other facilities during the same time period and today. The additional conditions have been added to help make compliance with an underlying requirement easier to determine by the facility, DEQ, and the general public. For example, the November 9, 2001 draft permit contained the condition to reasonably control fugitive dust, but did not contain any other term or condition by which compliance could be determined.

To be consistent with current permitting practices, the Final Permit contains the additional permit conditions whereby compliance with an underlying requirement can be more easily determined. To illustrate this point, the additional permit conditions that are used to reasonably assure compliance with the *Rules for the Control of Fugitive Dust* (Permit Condition 2.1), require that C. Wright monitor and maintain records of the frequency and methods used to control fugitive emissions (Permit Condition 2.2); maintain records of all fugitive dust complaints and take necessary corrective action in response to all valid complaints (Permit Condition 2.3); and conduct monthly facility-wide inspections of potential sources of fugitive dust to assure the control methods employed are working, and maintain records of each inspection (Permit Condition 2.4). Demonstrating compliance with these permit conditions reasonably assures compliance with the underlying requirement (Permit Condition 2.1 and IDAPA 58.01.01.650-651). Note, DEQ changed the monitoring and recordkeeping frequency from weekly to monthly. This change is consistent with permits issued to other facilities.

Response – Permit Conditions 2.6 and 2.7

The November 9, 2001 draft permit did not contain the requirement specifically regulating odors (IDAPA 58.01.01.776, *Rules for Control of Odors*). This rule, however, is part of Idaho's SIP for air pollution control and applies regardless whether the rule is incorporated into a permit or not. The odor rule was purposely incorporated into C. Wright's Final Permit (Permit Condition 2.6) because the facility is a potential source of odors.

To reasonably assure compliance with Permit Condition 2.6 and IDAPA 58.01.01.776, Permit Condition 2.7 requires that C. Wright record all odor complaints received, and for those complaints that are truly valid, take corrective action and record what corrective action was taken. No corrective action is a valid response, if upon inspection, odors are no worse than during normal operations.

Response – Permit Condition 2.9

As with the November 9, 2001 draft permit, the Final Permit incorporates the visible emissions rule (IDAPA 58.01.01.625) as an applicable requirement. The draft permit however, does not contain any terms or conditions by which compliance with the rule can be determined. Much in the same manner by which compliance is determined for fugitive dust, the Final Permit requires that C. Wright conduct monthly facility-wide inspections of potential sources of visible emissions. Each inspection is to consist of a see/no see observation. If visible emissions are present, C. Wright is required to take appropriate corrective action, or conduct a Method 9 opacity test. No corrective action is a valid response, if upon inspection, visible emissions do not exceed any visible emissions standard set forth in the permit. Again, weekly monitoring and recordkeeping was changed to monthly.

Response – Permit Condition 2.14

C. Wright requested that Permit Condition 2.14 in the Final Permit be deleted because the condition is confusing. Specifically, the permit condition requires that C. Wright monitor and maintain records of any sampling or source testing conducted. The Final Permit, however, does not require sampling or source testing, hence, the source of confusion. In order to alleviate the confusion, DEQ has tailored Permit Condition 2.14 specifically for C. Wright's operations. The following text shows exactly how the permit condition has been changed. Text that was deleted is struck through. Text that was added is underlined. None of the changes made have adversely affected the integrity of the original permit condition. Conversely, by clarifying the permit condition for C. Wright, the requirement is clear and its understood exactly what DEQ requires in terms of monitoring and recordkeeping.

Monitoring and Recordkeeping

2.14 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) (b) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to Department DEQ representatives upon request.

Response – Permit Condition 3.5

Permit Condition 3.5 in the November 9, 2001 draft permit specifies that the hot-mix asphalt plant shall only operate between the hours of 6:00 a.m. and 6:00 p.m. This operating schedule was suggested and provided by C. Wright as a means to demonstrate compliance with the 24-hour PM₁₀ NAAQS. C. Wright now contends the schedule is inflexible because at times they need to begin operating earlier in the day than 6:00 a.m. to remain competitive. Because 12 hours of operation drives the permit condition rather than a specific block of time, DEQ has changed Permit Condition 3.5 in the Final Permit to state that the hot-mix asphalt plant shall operate no more than 12-hours per any calendar day.

Response – Permit Condition 3.10.2

Permit Condition 3.10.2 in the Final Permit is the monitoring and recordkeeping requirement for Permit Condition 3.5. Because Permit Condition 3.5 no longer limits operations from 6:00 a.m. to 6:00 p.m., the petition to change Permit Condition 3.10.2 no longer applies. Permit Condition 3.10.2 in the proposed permit requires that C. Wright monitor and record the startup and shutdown of the hot-mix asphalt plant each day the plant operates to demonstrate that it operates no more than 12 hours per day.

Response – Petition Item 3.1

The DEQ agrees that Permit Conditions 2.2, 2.3, 2.4, 2.6, 2.7, 2.9, 3.5, and 3.10.2 in the Final Permit were not made available to C. Wright or to the public prior to issuance of the Final Permit on July 8, 2003. The DEQ has taken C. Wright's petition into account and has made changes appropriate and consistent with current permitting practices and as described in this statement of basis. The DEQ has crafted Proposed Tier II Operating Permit No. T2-030055 in response to the petition and will provide it for public comment in accordance with IDAPA 58.01.01.404.02.b.

2. <u>The new conditions and requirements in the Final Permit are not authorized under the Idaho Air Rules.</u>

IDAPA 58.01.01.403 allows DEQ to require or revise a Tier II operating permit for any stationary source or facility whenever DEQ determines: that emission rate reductions are necessary to attain or maintain any ambient air quality standard or applicable PSD increment; or specific emission standards or requirements on operation or maintenance are necessary to ensure compliance with any applicable emission standard or rule.

3. The new conditions and requirements in the Final Permit are unreasonable.

The new conditions and requirements in the Final Permit are consistent with conditions and requirements in permits issued for other similar-type sources and facilities. Because DEQ is not requiring anything more of C. Wright than any other facility, the new conditions and requirements are fair and reasonable. It is in C. Wright's best interest to accept and comply with the monitoring and recordkeeping requirements because they specify how compliance is to be determined. Without the monitoring and recordkeeping requirements, compliance is difficult to assess and may leave C. Wright vulnerable to compliance and/or enforcement action.

4. Additional clarifications to Final Permit

4.1 40 CFR 60, SUBPART OOO Applicability

- Permit Conditions 4.5 and 4.6 in the Final Permit set forth NSPS opacity standards for crushers; transfer points on belt conveyors; each grinding mill, screening operation, bucket elevator, belt conveyor bagging operation, storage bin, enclosed truck, or rail car loading. Both permit conditions leave identifying those NSPS affected facilities up to C. Wright as well as the corresponding visible emissions standard. So there is no misunderstanding, C. Wright requested that DEQ identify the NSPS affected facilities and include the appropriate visible emissions standard. According to C. Wright's permit application and documentation contained in C. Wright's source file located at DEQ, the only affected facilities subject to the opacity standard contained in 40 CFR 60.672(b), are an Eljay, 5' x 16' screen deck (identified by C. Wright as the "skimmer screen"), manufactured in 1986, and an Eljay, Model FSG 5163, stand-alone screen deck, manufactured in 1997. All other crushing equipment was manufactured prior to August 1, 1985, the effective date of the NSPS.
- 2) C. Wright also questioned whether the NSPS affected screen decks are subject to both the state standard (20% opacity for no more than 3 minutes in any 60-minute period) and the NSPS standard (no individual readings greater than 10%). Because the NSPS is more stringent than the state standard, compliance with the NSPS standard inherently demonstrates compliance with the state standard.

4.2 Visible Emissions Crossing The Facility Boundary

C. Wright wanted clarification concerning Permit Condition 2.5 which requires that no visible emissions be seen crossing the facility boundary. C. Wright contends that atmospheric conditions may cause dust not generated by C. Wright to blow across their facility boundary, thus possibly causing them to be called out of compliance. The DEQ has added the following underlined text to Permit Condition 2.5 to clarify that only those emissions generated onsite are the emissions subject to the visible emissions requirement.

2.5 Fugitive emissions generated onsite shall not be observed leaving the facility boundary for a period or periods aggregating more than three minutes in any 60-minute period. Visible emissions shall be determined by EPA Method 22, as described in 40 CFR 60, Appendix A, or a DEQ-approved alternative method.

Appendix B AIRS Information

AIRS INFORMATION

AIRS/AFS a FACILITY-WIDE CLASSIFICATION DATA ENTRY FORM

AIR PROGRAM	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION
POLLUTANT							A – Attainment U – Unclassifiable N – Nonattainment
SO_2	В						U
NO _x	В						U
СО	В						maintenance area
PM_{10}	SM						maintenance area
PT (Particulate)	В						U
voc	В						U
THAP (Total HAPs)	В						
	APPLICABLE SUBPART						
			000				

^{a.} Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 T/yr threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions are below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

Note: This facility is not an SM80 facility.

b. AIRS/AFS Classification Codes:

Appendix C

October 28, 2004 Permit Application

(Document Titled: Asphalt Production Limit on C. Wright Construction, Inc. Tier II Operating Permit No. T2-000033)

Appendix D

December 9, 2004 Application Addendum

(Document Titled: Changes in Fugitive Emissions Associated with Increase in Asphalt Production)

Appendix E

December 21, 2004 Application Addendum

(Document Titled: C. Wright Construction, Inc. Tier II Operating Permit No T2-000033 – Additional Modeling Analysis of Proposed Production Increase for Hot Mix Asphalt Plant)

Appendix F

DEQ Modeling Memorandum January 12, 2005